

# TV TechCheck

The Weekly NAB Newsletter for TV Broadcast Engineers



## Help for the Tens of Millions of TV Viewers That Use Antennas

Last week, CEA issued a [press release](#) announcing in-house research that concluded that 7% of American TV households rely solely on an antenna for access to television programming. NAB was quick to [respond](#) that the CEA study was at odds with a recent more independently conducted study that found a much higher percentage of over-the-air usage. The percentage of the U.S. population that relies on over-the-air broadcasting for access to television service has been used by various advocacy groups over the years to challenge the relevance of broadcasting service in favor of other uses for broadcast spectrum. CEA falls into this category, pointedly indicating in their press release that “this study provides yet another reason why it is time for broadcast spectrum to be reallocated, and quickly,” perhaps offering a reason for some skepticism about the research.

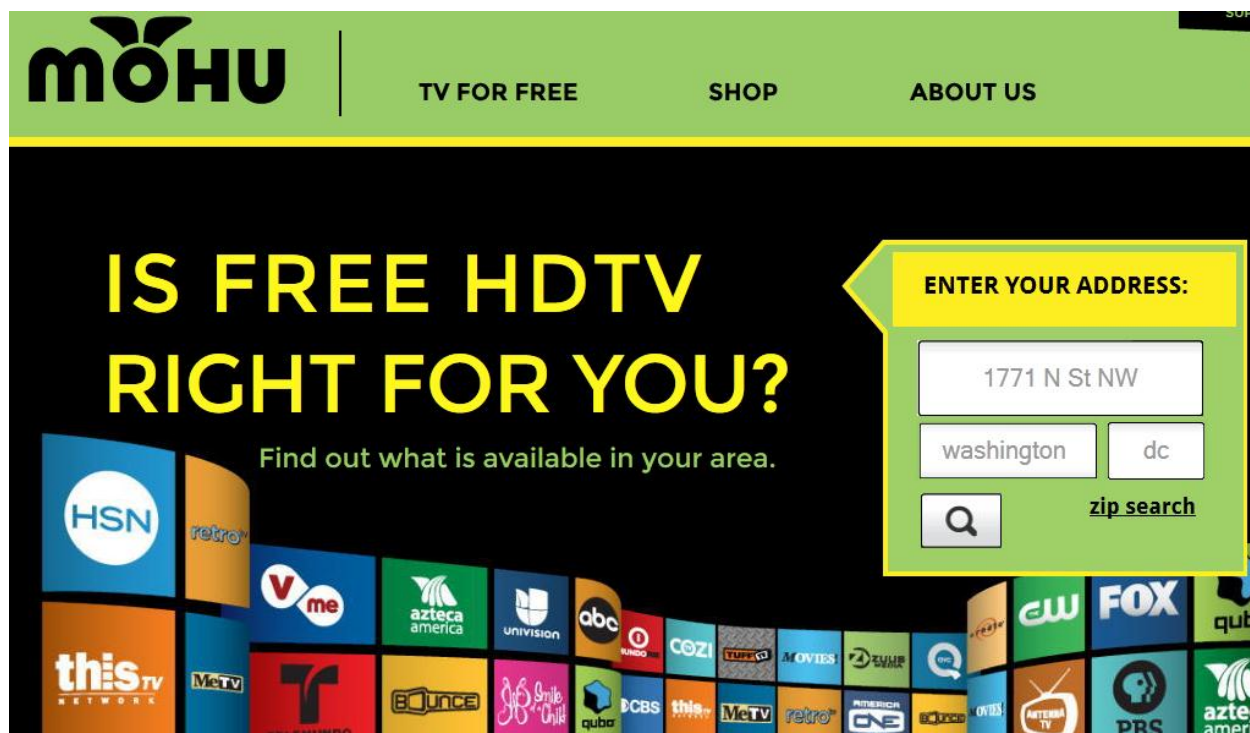
NAB indicated that a neutral and credible survey on broadcast-only homes is performed annually by The Home Technology Monitor, a syndicated research service from the GfK Media and Entertainment Group (formerly Knowledge Networks). Based on a statistically representative sample of the full U.S. population, their survey released in June 2013 showed that 19.3% of U.S. TV homes (roughly 22 million households or 59.7 million people) receive TV programming exclusively via over-the-air broadcast antennas, compared to 17.4% in 2012, 15% in 2011 and 14% in 2010. The survey also showed significant growth in broadcast-only TV reception capability over the past few years among minority populations (22% of African-Americans versus 12% in 2010), younger adults (28% with a head of household between 18 and 24 versus 18% in 2010), and lower income households (30% of homes with annual income under \$30,000 compared to 22% in 2010).

It's also well known that many homes that subscribe to a pay-TV service also have 2<sup>nd</sup> and 3<sup>rd</sup> TV sets that are not connected to the pay-TV service but do have antennas connected for broadcast TV reception. In addition, some TV sets that are connected to pay services also have antennas connected, either as a backup in the case of pay-TV service failure, a backstop against forgetting to pay the monthly bill, or for access to broadcast programs that are not carried by the pay-TV provider. If all these situations are added together, the number of additional TV sets actually connected to over-the-air antennas is many tens of millions.

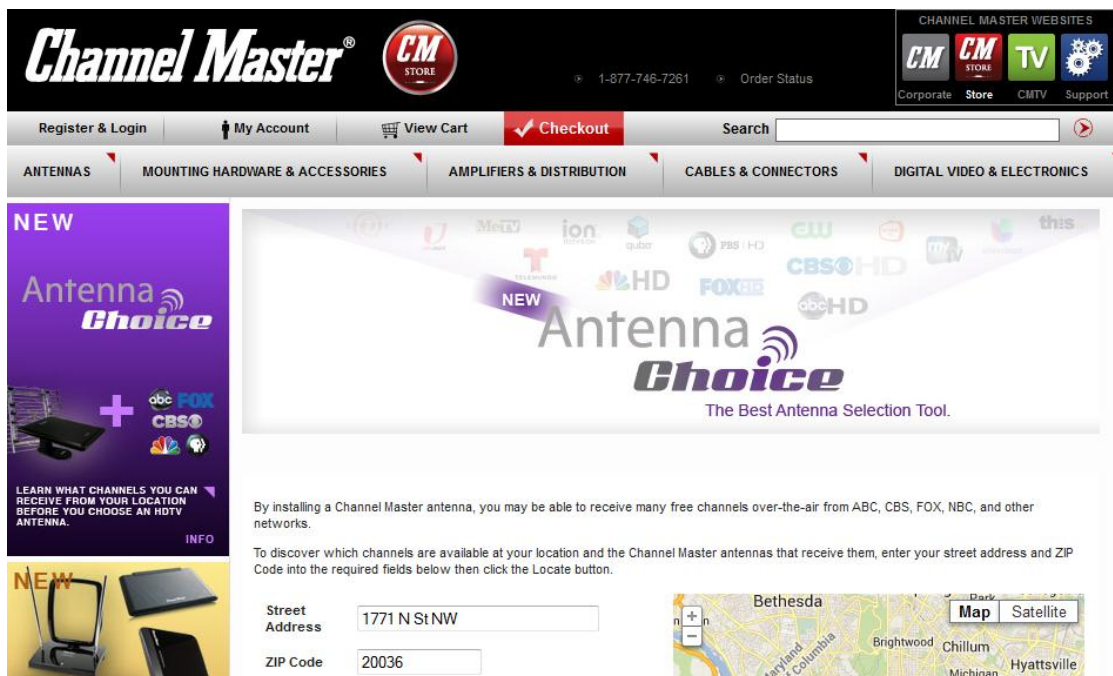
Regardless of how many millions of viewers use antennas, it ought to be easy for consumers to get general information about TV antennas and to find out what type of antenna would be appropriate for them. There is good news on this front. Several organizations have recently launched online informational programs to help consumers get their free TV.

Mohu, a North Carolina-based antenna manufacturer that began selling its “Leaf” indoor antenna in 2011, launched a new web-based [“TV-For-Free”](#) tool last week to help consumers discover what local broadcast channels are available to them over-the-air. After entering a zip code or address in the

opening screen (shown below), the program returns a channel list and a map showing the transmitter locations. The total number of stations accessible from that location changes by selecting either an indoor or outdoor antenna from Mohu.



In mid-July, long-time antenna manufacturer Channel Master also launched an antenna selection tool accessible at [www.antennachoice.com](http://www.antennachoice.com). Entering an address at the website returns a list of antennas from the manufacturer that will work at that location. The Channel Master tool is powered by Broadcast Interactive Media, which is also the developer of the CEA/NAB sponsored [www.antennaweb.org](http://www.antennaweb.org) antenna selection website (now also available as an app on LG Smart TVs – [see July 1 2013 TV TechCheck](#)).



Channel Master also supports the antenna color code scheme employed at antennaweb.org. Each Channel Master antenna is listed in a chart (a portion of the chart is shown below) with its corresponding antennaweb.org color code for ease of selecting the right antenna.

Part Number	Antenna Type	Outdoor	Distance Rating (Miles)		Antenna Web Color Code					
			VHF	UHF	Yellow	Green	LT Green	Red	Blue	Violet
CM-2016	VHF High / UHF	Outdoor	35	35	Yellow	Green	LT Green	Red		
CM-2018	VHF High / UHF	Outdoor	60	45	Yellow	Green	LT Green	Red	Blue	
CM-2020	VHF High / UHF	Outdoor	60	60	Yellow	Green	LT Green	Red	Blue	Violet
CM-3000A	VHF/UHF	Outdoor	45	30	Yellow	Green	LT Green			
CM-3010	VHF/UHF	Outdoor	45	30	Yellow	Green				
CM-3016	VHF/UHF	Outdoor	45	30	Yellow	Green	LT Green	Red		
CM-3018	VHF/UHF	Outdoor	60	40	Yellow	Green	LT Green	Red	Blue	Violet
CM-3020	VHF/UHF	Outdoor	100	60	Yellow	Green	LT Green	Red	Blue	Violet
CM-3022	UHF	Outdoor	30	30	Yellow	Green	LT Green			

Finally, last week Consumer Reports published an [article](#) on its website concerning indoor television antennas. The article notes that ratings for such antennas are difficult, and that indoor antennas won't generally work as well as outdoor antennas, but in many cases are an easy and cheap alternative for accessing local TV signals. The Consumer Reports article also points out [antennaweb.org](#), the [FCC DTV reception maps](#) and additional websites [antennapoint.com](#) and [TVFool.com](#) as good sources of additional information.

## 2013 NAB Broadcast Engineering Conference Proceedings

The 2013 BEC Proceedings feature select technical papers on the most recent developments in broadcast technology. Important topics covered include: IP for Television and Radio, Next Generation Television Broadcasting, Audience Measurement Technologies and AM Band Revitalization. [Learn more and purchase here.](#)

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